Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

VARIOUS.

MASTIC FOR FASTENING INDIA-RUBBER ON METALS.

A mastic for fastening india-rubber on metals may be obtained by steeping gum-lac, in the form of pulverized scales, in ten times its weight of concentrated ammonia. A transparent mass is thus formed, which, at the end of three or four weeks, becomes fluid without the use of warm water. This substance, applied on india-rubber, becomes hard, and completely impervious to liquids and gases. *Moniteur Industriel Belge.*

WHITEWASH FOR WOOD, BRICK AND STONE.

The following receipt for whitewash is recommended by the United States Treasury Department to all the lighthouse keepers. It answers for wood, brick or stone. Slake about half-bushel unslaked lime with boiling water, keeping it covered during the process. Strain it, and add a peck of salt, dissolved in warm water, 3 lb. of ground rice put in boiling water, and boiled to a thin paste, $^1/_2$ lb. of powdered Spanish whiting and 1 lb. clear glue, dissolved in warm water; mix these well together; and let the mixture stand for several days. Keep the wash thus prepared in a kettle or portable furnace, and when used put it on as hot as possible, with either painters or whitewash brushes.

The Engineer.

COPPER PAINT FOR CAST IRON.

The Paris correspondent of Silliman's Journal states that Mr. Andry, who has been so successfull in electro-plating with copper the cast iron monumental fountains in the *Place de la concorde*, makes his new copper paint from porous copper deposited by the galvanic battery, mixed with varnish. The solvent of this varnish is the light and refined petroleum, or. what we call benzine. The copper is very pure and easily pulverised, then it is mixed with a Benzine varnish and applied either to iron, brass, plaster or wood. When this copper is mixed with oils, it acquires a green antique hue.

PAINT FOR ORNAMENTAL OBJECTS.

Plaster casts, and other ornamental objects are now covered with a silvery film of colourless and finely divided mica, in the following simple and inexpensive manner. — Plates of mica are first rendered perfectly clean and white, either by boiling in muriatic acid or by igniting them; they are then washed, dried, and ground to fine powder which is carefully sifted or elubriated and mixed with very fine collodion. It is now ready to be applied like a paint or varnish with a soft pencil, two or more coats being given until of the desired thickness. The objects thus coated have a silvery appearance and possess one advantage over those in which tinsel or a metallic bronze is applied, not being at all affected by sulphureous vapours. They are not injured by dust and dirt and may be cleaned by washing in water. Collodion adheres firmly to glass, porcelain, wood, metal and pasteboard, and mica is capable of taking any desired colour. *The Engineer.*

WOOD WALL-PAPER.

The use of wood for wall-paper is not a novelty, but a great improvement in its preparation has been lately made by Mr. C. W. Spurr, of Boston in America. The wood is cut to the thickness of paper, and by a peculiar process stuck on to the paper, which serves as a protection against the influence of the walls on the graining and colour of the wood. The delicacy of the machinery employed in cutting so thin a veneer may be gathered from the fact that 200 leaves are cut out of an inch of white maple-wood, and 125 out of wood of very open grain, such as oak and nut-wood. *The Practical Magazine.*

ARCHÆOLOGICAL DISCOVERY IN SAN FRANCISCO.

According to an American Contemporary a copper image, fourteen inches in height, and weighing about fifty pounds, may be seen at Barry's and Patten's, Montgommery Street, San Francisco. This figure was excavated from the sands of an Aztec village in Tucson, by some workman of the Colorado Steam Navigation Company, and presented by Captain Hartshorn, president of the company to Messrs. Barry and Patten. The image represents an Aztec priest, holding in its hand a human heart. Prescott's history describes the sacrificial ceremonies of the Aztecs, where the priest held the victims upon the altar and cut out the living heart, holding it up to the sun. This image of the old sun-worshipper is supposed to be a thousand years old. *The Engineer.*

PLATING UNGLAZED PORCELAIN.

M. Hausen, of Stockholm, gives the name of *argentina* to his method of covering unglazed porcelain with a coating of gold, silver, or copper. It is thought the porcelain articles are dipped in a solution of a salt of the metal, and then, by a peculiar process of reduction, the metal is deposited within the pores of the earthenware. Articles covered with a metallic coating according to this process, present every appearance of being entirely composed of the metal. *Deutsche Industrie-Zeitung.*

PROCESS FOR GIVING PAPER AND WOOD SURFACES A CRYSTALLINE COATING.

According to Prof. Böttger, the simplest method of giving paper and wood surfaces a crystalline coating is as follows: — Mix a very concentrated cold solution of salt with dextrine, and lay the thinnest possible coating of the fluid on the surface to be covered, by means of a broad soft brush. After drying, the surface has a beautiful bright mother-of-pearl coating, which, in consequence of the dextrine, adheres firmly to paper and wood. The coating may be made adhesive to glass by doing it over with an alcoholic shellac solution.

Prof. Böttger mentions the following salts as adapted to produce the most beautiful crystalline coating: sulphate of magnesia, acetate of soda, and sulphate of tin. Paper must first be sized, otherwise it will absorb the fluid and prevent the formation of crystal on its surface. Visiting cards with a mother-of-pearl coating have for some time been in use. Coloured glass is well adapted for such a coating, which has a good effect when the light shines through. *Bayerisches Industrie- und Gewerbe-Blatt.*

NEW MODE OF HARDENING SANDSTONE.

In Saxony, sandstone is soaked in a solution of alkaline silicates and of alumina. The liquid penetrates some inches into the stone, and renders the surface so hard that it resembles marble and will bear polishing. On being heated to a high degree, the surface vitrifies, and it may be coloured at pleasure.

PLATING OF METALS.

For plating various metals, *e. g.* iron, steel, brass, lead, and zinc, M. Vegler recommends the following process: — Prepare a solution of perchloride of tin by passing chlorine through a concentrated solution of salt tin. Dilute the product by 8 to 10 times its volume of water, and filter, if necessary. The article, half scoured with sulphuric acid, is to be polished with sand and the scratch-brush, then washed with water, and hung by a zinc wire for 10 or 15 minutes in the solution of perchloride of tin. Afterwards take it out, rub it with the scratch-brush, dry it, and polish it.

Revue Industrielle.